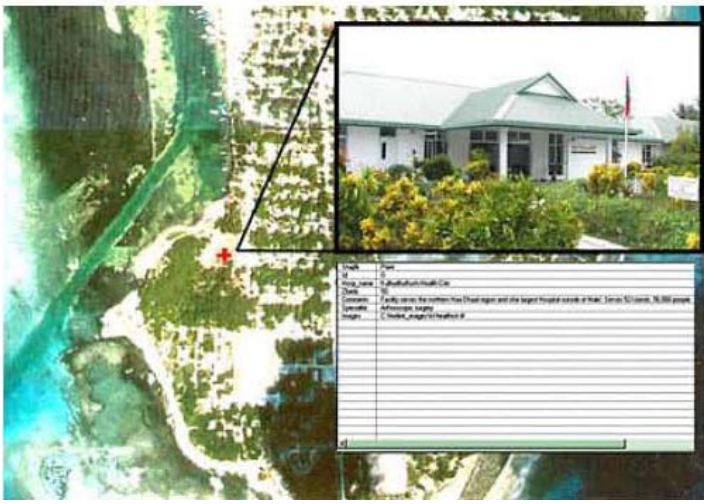
PDC helps island nations conduct Disaster Preparation Mitigation Assessments (DPMA)

Since 1999, PDC has supported and participated in the **Disaster Preparation Mitigation Assessment (DPMA)**, a U.S. Army Civil Affairs program conducted in the Pacific Region. DPMA is designed to conduct an overview of a host nation's vulnerability to disaster by reviewing its national disaster plan and inventorying local emergency management resources.

Historically, DPMA produces a Geographic Information System (GIS) data base, which is given to the host nation to provide a visual means to manage disasters internally. The program is also used to help regional partners conduct DPMA activities on their own or in conjunction with U.S. agencies.



***All types of spatial data**, including maps, aerial imagery, vector lines, attributes, and ground photography are brought together, showing a snapshot of a nation's facilities and aid officials in disaster planning.*

***Assessing the location and vulnerability** of a host nation's critical facilities is vital to making informed recommendations to national mitigation strategies.*

With PDC's help, the DPMA report has moved from a paper document with photocopied maps to an electronic one with supporting GIS data. Plans for future PDC participation include providing the host country and DPMA management with data of the existing and needed data sets to support a Federal Emergency Management Agency-style (FEMA) Risk and Vulnerability Assessment. This will allow the nation to request and support such a process more easily.

PDC has specifically provided GIS and GPS support to DPMA programs in Western Samoa, the Cook Islands, Mauritius, Niue, the Maldives, the Philippines, and the Marshall Islands. Maps and imagery data are often combined with data gathered on the ground, such as digital photos and building characteristics to provide a comprehensive overview of an island nation's infrastructure and vulnerability to natural hazards.

Decision and Policy Support

Institutional Capacity Development

Risk and Vulnerability

"With PDC's help, the DPMA report has moved from a paper document ...to an electronic one with supporting GIS data."

GIS support to DPMA

- Pre-mission: GIS support includes acquiring data and processing imagery and vector data into a standard projection.
- Deployed with Mission: Coordinate spatial data collection efforts and information gap identification. Data is inputted into a spatial environment.
- Post-mission: Integrate data bases (digital photos, maps, etc.) and provide data in context for risk and vulnerability studies and mitigation planning strategies. Produce maps. Substantial post-processing of a mix of data, some spatial, some tabular. Produce an integrated GIS compact disk of all relevant spatial data to be disseminated with the final DPMA Report.
- Future PDC Support: To include a Data Gap Analysis for a possible future FEMA-style Risk and Vulnerability Study.

Teamwork between DPMA members, *facilities management, and planning officials is critical to DPMA mission success and the building of disaster community relationships.*

PDC's DPMA time/space analysis *showing the "growth" of Male Island, Maldives, over several decades. Coral is mined from nearby atolls, processed, and used as landfill to increase the size of the island. The yellow outline shows the original size of the island.*

The DPMA program *draws much of its strength from the participation and teamwork of subject matter experts from various civilian, military, and international organizations, including PDC.*

Pacific Disaster Center • 1305 N. Holopono St. Ste. 2 • Kihei, HI 96753 • Phone 808.891.0525 • Email info@pdc.org • www.pdc.org

Mission: To provide applied information research and analysis support for the development of effective policies, institutions, programs and information products for the disaster management and humanitarian assistance communities of the Asia Pacific and beyond.